

Title (en)

MEASUREMENT CIRCUIT AND ITS USE, IN PARTICULAR WITH INDUCTIVE POSITION SENSORS.

Title (de)

MESSSCHALTUNG UND ANWENDUNG DERSELBEN, INSBESONDERE MIT INDUKTIVEN WEGGEBERN.

Title (fr)

CIRCUIT DE MESURE ET SON UTILISATION, NOTAMMENT AVEC DES CAPTEURS INDUCTIFS DE POSITION.

Publication

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Application

EP 90906915 A 19900526

Priority

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Abstract (en)

[origin: WO9102985A1] A circuit (MS) for measuring the value of an impedance in an impedance network connected to the measurement circuit has first oscillator means (OSZ1), second oscillator means (OSZ2), a phase-controlled rectifier (PG), comparator means (AG) between a desired value and a real value and an integrator (I). The first oscillator means apply a first alternative voltage of constant amplitude and frequency to a first output connection (A1). The second oscillator means apply a second alternative voltage of identical frequency, but variable amplitude and opposite phase, to a second output connection (A2). The amplitude of the second alternative voltage depends on the phase of the signal which is transmitted to the phase-controlled rectifier via an input connection (E). If the input signal is in phase with the second output signal, the amplitude of the second output signal is reduced. If the phase of the input signal is opposite, however, to the phase of the second output signal, the amplitude of the second output signal is increased. The amplitude is changed by means of the integrator, which integrates the rectified signal that has been rectified and compared with a desired value, and supplies the integration value as an amplitude setting value. If an impedance network is connected to this measurement circuit in an appropriate manner, the amplitude of the second output signal is set to a fixed value. From the relationship between the amplitudes of both output signals and known properties of the impedance network, the impedance value of a predetermined impedance, which is at first unknown, can be determined very precisely. The circuit is therefore particularly useful with position sensors in motor vehicles.

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